

AUTOMATIC BEAM LIMITER CIRCUIT

ABSTRACT OF THE DISCLOSURE

An automatic beam limiter circuit (ABL circuit) calculating an average of a video
5 signal at least a portion of the video signal is provided. After a converter circuit converts
an analog signal, which is generated from the video signal, to a digital signal, a horizontal
and a vertical average circuits calculate a horizontal and vertical averages of the digital
signal at least a portion of the digital signal. The portion of the digital signal is a scanned
line of the digital signal on a CRT. A comparison circuit compares a first calculation
10 value calculated between a reference value and the vertical average with a second
calculation value calculated between the reference value and the horizontal average, and
outputs a first comparison signal and a second comparison signal based on the
comparison results. A gain control circuit produces a gain control signal for adjusting the
brightness/contrast in response to the first comparison and second comparison signals.
15 Advantageously, the automatic beam limiter circuit is capable of efficiently preventing a
frame delay in controlling the brightness/contrast of the video signal and the rapid
increase of beam current when a black field is rapidly changed into a white field.